

Claims:

- 35
1. A method for rendering graphic images, said method comprising the step of:
generating a rendered image comprising only those external visible features of a
computer generated model that are visible from a user's viewing orientation.
- 5
2. The method of claim 1, wherein said method comprises the steps of;
extracting topological structure and geometric information from said computer
generated model;
identifying internal non-visible features and external visible features from the model;
visually displaying only said exterior visible features as said rendered image.
- 10
3. The method of claim 2, further comprising the step of linking the interior features
to the visually displayed exterior features.
- 15
4. The method of claim 1, wherein internal components are omitted from said rendered
image.
5. The method of claim 1, wherein hidden components are omitted from said rendered
image.
6. The method of claim 1, wherein components of said model are compared to
ascertain intersection of said components.
7. The method of claim 1, wherein first and second components of said model are
compared to ascertain if said first component contains said second component.
- 20
8. The method of claim 1, further comprising the step of determining a set of external
visible features.

9. The method of claim 8, wherein the step of determining said set of external visible features comprises identifying a user-defined visual object.

10. The method of claim 9, wherein at least one additional object is automatically selected and compared with said user-defined visual object to ascertain if said at least one additional object intersects said user-defined visual object.

11. The method of claim 10, further comprising the step of calculating an intersection of said external visible features.

12. The method of claim 10, wherein a second object is compared with said user defined visual object to ascertain if said at least one additional object contains said user-defined visual object.

13. The method of claim 12, wherein a second object is compared with said user defined visual object to ascertain if said at least one additional object is disjointed from said user-defined visual object.